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PATENT APPLICATION

**RESPONSE UNDER 37 CFR §1.116
EXPEDITED PROCEDURE
TECHNOLOGY CENTER ART UNIT 2613**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Hidekazu KOJIMA et al.

Group Art Unit: 2613

Application No.: 09/423,461

Examiner: S. An

Filed: November 30, 1999

Docket No.: 104651

For: OPTICAL FIBER OBSERVING IMAGE PROCESSING APPARATUS

REQUEST FOR RECONSIDERATION AFTER FINAL REJECTION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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JUN 02 2004

Technology Center 2600

Sir:

In reply to the March 12, 2004 Office Action, reconsideration is respectfully requested in view of the following remarks. Claims 1-25 are pending and claims 7-25 are withdrawn from consideration.

The Office Action rejects claims 1-6 under 35 U.S.C. §103(a) over Hattori (U.S. Patent No. 6,034,718) in view of Takahashi (U.S. Patent No. 5,522,789). The rejections are respectfully traversed.

In particular, neither Hattori nor Takahashi, individually or in combination, discloses or suggests two or more different capturing modes regarding the capturing of the image data, the capturing modes can automatically be switched in synchronous with or independently from progress of the image processing to position the optical axes and end faces of optical fibers, as recited in independent claim 1, and similarly recited in independent claims 2-6.

The Office Action admits that Hattori does not disclose these features. However, the Office Action asserts that Takahashi discloses the features. In particular, the Office Action at page 4 asserts that "Takahashi teaches two camera image observation processing apparatus (Fig. 11(a)) comprising the image capturing means having two or more different capturing modes (Fig. 12, 53, memory for cameras 2a and 2b, respectively), wherein the capturing modes which are automatically switched (Fig. 12, 54; col. 11, lines 45-53) in synchronous with or independently from process of the image processing (Fig. 11, 37)." Applicants respectfully disagree.

Takahashi's Fig. 11 relates to an apparatus in which two cameras (CCDs) are used. Concerning a memory 53 (Fig. 12) of a signal processing unit 33 (Fig. 11), Takahashi does not disclose an internal configuration of the memory 53. However, based on the disclosure of Takahashi, the memory 53 may be constructed as attached in the Appendix. As shown in the Appendix, there is no equivalent for right-left select switches S2a and S2b, which are shown in Fig. 15. Therefore, Takahashi does not disclose or suggest the above-noted features of the claims.

Moreover, Takahashi's Fig. 15 relates to a memory 65 in a block diagram (Fig. 14), which shows the signal processing unit 58 in an apparatus (Fig. 13) using a single camera. However, the claims recite two or more cameras. Therefore, this disclosure of Takahashi does not operate in the manner as recited in the claims.

However, even if a comparison is to be made, the memory 65 in Takahashi's Fig. 15 looks complicated, but, in fact, it is a simple memory structure based on a capturing mode of input and output signals. In memory 65, a right image signal and left image signal are stored separately in the memory and displayed alternatively.

That is, field memory 65a to 65h in which an image read from a camera 31 is written, are merely switched. An image read from the camera 31 is divided into a right image and a

left image, and both the images are captured. There is no switching capturing modes or displaying modes as recited in the claims.

Each switch is switched with a signal having a predetermined duration, and a position of the memory is displayed alternatively at a short duration to achieve three-dimensional displays. Thus, the configuration of memory 65 is that an output signal read from the CCD 31 is divided into a right image signal and a left image signal, and then temporarily stored in the memory 65. Right image signals and left image signals are read alternately frame by frame and then displayed on the color monitor 35 by performing interlaced scanning as shown in Fig. 16.

Further, Takahashi discloses at col. 13, line 65 to col. 14, line 4 that the frame select switches S1 to S6 are switched with a frame switch signal having a duration of one-thirtieth sec. The field select switches S3a to S3d, S5a and S5b are switched with a field switch signal having a duration of one-sixtieth sec. The right-left select switches S4a to S4d are switched with a right-left switch signal having a duration of 1/120 sec. Assuming that the number of horizontal pixels at a right or left image is X and a horizontal transfer clock frequency is f (Hz), the right-left select switch S2a or S2b is switched at intervals of a product of X by fS.

In summary, in Takahashi, right-left select switch is switched only once at intervals of a product of X by fS during a duration of each frame. Different capturing modes or displaying modes are utilized in Takahashi; however, Takahashi fails to disclose switching from pixel to pixel and multiplexing the modes as recited in the claims.

Additionally, if the intersection between the optical axis is displayed at inconsistent positions in the right and left images, the read timing should be regulated. Consistency in positions of the interactions of the right and left images are reflected.

The pulse generator 54 applies an A/D clock and a D/A clock to the A/D converters 52a and 52b, and the D/A converter 57, respectively. The pulse generator 54 applies a memory address signal and a switch signal to the memory 53. Furthermore, the pulse

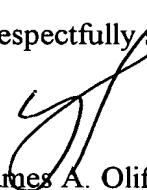
generator 54 applies a right-left switch signal to liquid crystal glasses 39 synchronously with a display of a right or left image. The memory 53 is one of the components of the image display timing corrector.

Accordingly, it is respectfully submitted that Takahashi does not disclose or suggest the features of the claims. Therefore, independent claims 1-6 define patentable subject matter. Thus, withdrawal of the rejection under 35 U.S.C. §103(a) is respectfully requested.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-6 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,


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JAO:YSC/dmw

Date: May 28, 2004

Attachment:

Appendix

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DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461
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